

96700-1031 - from 862 seq list.ST25.txt  
SEQUENCE LISTING

<110> ALBERT EINSTEIN COLLEGE OF MEDICINE OF YESHIVA UNIVERSITY  
JACOBS, JR., William R.  
HSU, Tsungda  
BARDAROV, Stoyan (deceased)  
SAMBANDAMURTHY, Vasan  
MORRIS, Sheldon

<120> USE OF MYCOBACTERIAL VACCINES IN CD4+ OR CD8+  
LYMPHOCYTE-DEFICIENT MAMMALS

<130> 96700/1031

<140> PCT/US2004/001773

<141> 2004-01-23

<150> US 60/442,631

<151> 2003-01-24

<160> 12

<170> PatentIn version 3.3

<210> 1

<211> 9454

<212> DNA

<213> Mycobacterium tuberculosis

<400> 1

gatcgtgggt gccgccgggg ggatgccgcc gatggcaccg ctggccccgt tattgccggc	60
ggcggcagat atcggggttgc acatcattgt cacctgtcag atgagccagg cttacaaggc	120
aaccatggac aagttcgtcg gcgccgcatt cgggtcgggc gctccgacaa tggttcctttc	180
gggcgagaag caggaattcc catccagtga gttcaaggct aagcggcgcc cccctggcca	240
ggcattttctc gtctcgccag acggcaaaga ggtcatccag gccccctaca tcgagcctcc	300
agaagaagtg ttcgcagcac cccaagcgc cggttaagat tatttcattg ccggtgtagc	360
aggacccgag ctacgcccgg taatcgagtt cgggcaatgc tgaccatcgg gtttgtttcc	420
ggctataacc gaacgggtttg tgtacgggat acaaatacag ggaggggaaga agtaggcaaa	480
tggaaaaaat gtcacatgat ccgatcgctg ccgacattgg cacgcaagtg agcgacaacg	540
ctctgcacgg cgtgacggcc ggctcgacgg cgctgacgtc ggtgaccggg ctggttcccc	600
cggggggcca tgaggctctc gccaagcgg cgacggcggt cacatcggag ggcattcaat	660
tgctggcttc caatgcatcg gccaagacc agctccaccg tcggggcgaa gcggtccagg	720
acgtcgcccg cacctattcg caaatcgacg acggcgccgc cggcgtcttc gccgaatagg	780
cccccaacac atcggaggga gtgatcacca tgctgtggca cgcaatgcc a ccggagctaa	840
ataccgcacg gctgatggcc ggcgcgggtc cggctccaat gcttgcggcg gccgcgggat	900
ggcagacgct ttcggcggct ctggacgctc aggccgtcga gttgaccgcg cgcctgaact	960
ctctgggaga agcctggact ggagggtggca gcgacaaggc gcttgcggt gcaacgccga	1020

96700-1031 - from 862 seq list.ST25.txt

tggtggtctg gctacaaacc gcgtcaacac aggccaagac ccgtgcgatg caggcgacgg	1080
cgcaagccgc ggcatacacc caggccatgg ccacgacgcc gtcgctgccg gagatcgccg	1140
ccaaccacat caccacaggcc gtccttacgg ccaccaactt cttcggatatc aacacgatcc	1200
cgatcgcggt gaccgagatg gattatttca tccgtatgtg gaaccaggca gccctggcaa	1260
tggaggtcta ccaggccgag accgcggtta acacgctttt cgagaagctc gagccgatgg	1320
cgtcgatcct tgatcccggc gcgagccaga gcacgacgaa cccgatcttc ggaatgccct	1380
cccctggcag ctcaacaccg gttggccagt tgccgccggc ggctaccag accctcggcc	1440
aactgggtga gatgagcggc ccgatgcagc agctgaccca gccgctgcag caggtgacgt	1500
cgttggtcag ccagggtggc ggcaccggcg gcggcaaccc agccgacgag gaagccgcgc	1560
agatgggcct gtcggcacc agtccgctgt cgaaccatcc gctggctggg ggatcaggcc	1620
ccagcgcggg cgcgggcctg ctgcgcgcgg agtcgctacc tggcgcaggt gggtcgttga	1680
cccgcacgcc gctgatgtct cagctgatcg aaaagccggt tgccccctcg gtgatgccgg	1740
cggctgctgc cggatcgctg gcgacgggtg gcgccgctcc ggtgggtgcg ggagcgatgg	1800
gccagggtgc gcaatccggc ggctccacca ggccgggtct ggtcgcgccg gcaccgctcg	1860
cgcaggagcg tgaagaagac gacgaggacg actgggacga agaggacgac tggtagctc	1920
ccgtaatgac aacagacttc ccggccaccc gggccggaag acttgccaac attttggcga	1980
ggaaggtaaa gagagaaagt agtccagcat ggcagagatg aagaccgatg ccgctaccct	2040
cgcgaggag gcaggtaatt tcgagcggat ctccggcgac ctgaaaaccc agatcgacca	2100
ggtggagtcg acggcagggt cgttgcaagg ccagtggcg gcgcggcg ggacggccgc	2160
ccaggccgcg gtggtgcgct tccaagaagc agccaataag cagaagcagg aactcgacga	2220
gatctcgacg aatattcgtc aggccggcgt ccaatactcg agggccgacg aggagcagca	2280
gcaggcgctg tcctcgcaaa tgggcttctg acccgctaata acgaaaagaa acggagcaaa	2340
aacatgacag agcagcagtg gaatttcgcg ggtatcgagg ccgcggcaag cgcaatccag	2400
ggaaatgtca cgtccattca ttccctcctt gacgagggga agcagtccct gaccaagctc	2460
gcagcggcct ggggcggtag cggttcggag gcgtaccagg gtgtccagca aaaatgggac	2520
gccacggcta ccgagctgaa caacgcgctg cagaacctgg cgcggaacgat cagcgaagcc	2580
ggtcaggcaa tggcttcgac cgaaggcaac gtcactggga tgttcgcata gggcaacgcc	2640
gagttcgcgt agaatagcga aacacgggat cgggcgagtt cgaccttcg tcggtctcgc	2700
cctttctcgt gtttatacgt ttgagcgac tctgagaggt tgtcatggcg gccgactacg	2760
acaagctctt ccggccgcac gaaggatatg aagctccgga cgatatggca gcgcagccgt	2820
tcttcgacct cagtgcctcg tttccgcccg cgcgcgcatc ggcaaacctt ccgaagccca	2880

96700-1031 - from 862 seq list.ST25.txt

acggccagac	tccgcccccg	acgtccgacg	acctgtcggg	gcgggttcgtg	tcggcccccg	2940
cgccgccacc	cccacccccca	cctccgcctc	cgccaactcc	gatgccgatc	gccgcaggag	3000
agccgccctc	gccggaaccg	gccgcatcta	aaccacccac	accccccatg	cccacgcgcc	3060
gacccgaacc	ggccccaccc	aaaccaccca	caccccccat	gccccatgcc	ggacccgaac	3120
cggccccacc	caaaccaccc	acacctccga	tgccccatgc	cggacctgca	cccaccccaa	3180
ccgaatccca	gttggcgccc	cccagaccac	cgacaccaca	aacgcccaacc	ggagcgccgc	3240
agcaaccgga	atcaccggcg	ccccacgtac	cctcgcacgg	gccacatcaa	ccccggcgca	3300
ccgcaccagc	accgcccttg	gcaaagatgc	caatcggcga	acccccgccc	gctccgtcca	3360
gaccgtctgc	gtccccggcc	gaaccaccga	cccggcctgc	cccccaacac	tcccgaagtg	3420
cgcgccgggg	tcaccgctat	cgcacagaca	ccgaacgaaa	cgtcgggaag	gtagcaactg	3480
gtccatccat	ccaggcgcg	ctgcgggcag	aggaagcatc	cggcgcgcg	ctcgcccccg	3540
gaacggagcc	ctcgccagcg	ccgttgggcc	aaccgagatc	gtatctggct	ccgcccaccc	3600
gccccgcgcc	gacagaacct	ccccccagcc	cctcgccgca	gcgcaactcc	ggtcggcggt	3660
ccgagcgagc	cgtccacccc	gatttagccg	cccaacatgc	cgcggcgcaa	cctgattcaa	3720
ttacggccgc	aaccactggc	ggtcgtcgcc	gcaagcgtgc	agcgccggat	ctcgacgcga	3780
cacagaaatc	cttaaggccg	gcggccaagg	ggccgaaggt	gaagaaggtg	aagccccaga	3840
aaccgaaggc	cacgaagccg	cccaaagtgg	tgctgcagcg	cggctggcga	cattgggtgc	3900
atgcgttgac	gcgaatcaac	ctgggcctgt	caccgcagca	gaagtacgag	ctggacctgc	3960
acgctcgagt	ccgccgcaat	ccccgcgggt	cgtatcagat	cgccgtcgtc	ggctctcaaag	4020
gtggggctgg	caaaaccacg	ctgacagcag	cgttgggggtc	gacgttggct	caggtgcggg	4080
ccgaccggat	cctggctcta	gacgcggatc	caggcgccgg	aaacctcgcc	gatcgggtag	4140
ggcgacaatc	gggcgcgacc	atcgctgatg	tgcttgacga	aaaagagctg	tcgcactaca	4200
acgacatccg	cgcacacact	agcgtcaatg	cgggtcaatct	ggaagtgtg	ccggcaccgg	4260
aatacagctc	ggcgagcg	gcgctcagcg	acgccgactg	gcatttcac	gccgatcctg	4320
cgtcgagggt	ttacaacctc	gtcttggtg	attgtggggc	cggcttcttc	gacccgctga	4380
cccgcggcgt	gctgtccacg	gtgtccgggtg	tcgtgggtcgt	ggcaagtgtc	tcaatcgacg	4440
gcgcacaaca	ggcgtcggtc	gcgttggaact	ggttgcgcaa	caacgggttac	caagatttgg	4500
cgagccgcgc	atgcgtgggtc	atcaatcaca	tcatgccggg	agaacccaat	gtcgcagtta	4560
aagacctggt	gcggcatttc	gaacagcaag	ttcaacccgg	ccgggtcgtg	gtcatgccgt	4620
gggacaggca	cattgcggcc	ggaaccgaga	tttcaactga	cttgctcgac	cctatctaca	4680
agcgcaaggt	cctcgaattg	gccgcagcgc	tatccgacga	tttcgagagg	gctggacgtc	4740
gttgagcgca	cctgctgttg	ctgctgggtcc	taccgccgcg	ggggcaaccg	ctgcgcggcc	4800

96700-1031 - from 862 seq list.ST25.txt

tgccaccacc	cgggtgacga	tcctgaccgg	cagacggatg	accgatttgg	tactgccagc	4860
ggcggtgccg	atggaaactt	atattgacga	caccgtcgcg	gtgctttccg	aggtgttgga	4920
agacacgccg	gctgatgtac	tcggcggtt	cgactttacc	gcgcaaggcg	tgtgggcgtt	4980
cgctcgtccc	ggatcgccgc	cgctgaagct	cgaccagtca	ctcgatgacg	ccgggggtgg	5040
cgacgggtca	ctgctgactc	tggtgtcagt	cagtcgcacc	gagcgctacc	gaccgttggg	5100
cgaggatgtc	atcgacgcga	tcgccgtgct	tgacgagtca	cctgagttcg	accgcacggc	5160
attgaatcgc	tttgtggggg	cggcgatccc	gcttttgacc	gcgcccgtca	tcgggatggc	5220
gatgcgggcg	tggtgggaaa	ctgggcgtag	cttgtggtgg	ccgttggcga	ttggcatcct	5280
ggggatcgct	gtgctggtag	gcagcttcgt	cgcgaaacagg	ttctaccaga	gcggccacct	5340
ggccgagtgc	ctactggtca	cgacgtatct	gctgatcgca	accgccgcag	cgctggccgt	5400
gccgttgccg	cgcggggtca	actcgttggg	ggcgccacaa	gttgccggcg	ccgctacggc	5460
ctgctgtttt	ttgaccttga	tgacgcgggg	cgcccttcgg	aagcgatcatg	agttggcgctc	5520
gtttgccgtg	atcaccgcta	tcgcggtcat	cgcgcccgcc	gctgccttcg	gctatggata	5580
ccaggactgg	gtccccgcgg	gggggatcgc	attcgggctg	ttcattgtga	cgaatgcggc	5640
caagctgacc	gtcgcggtcg	cgcggatcgc	gctgccggcc	attccggtac	ccggcgaaac	5700
cgtggacaac	gaggagttag	tcgatcccgt	cgcgaccccc	gaggctacca	gcgaagaaac	5760
cccgcctgg	caggccatca	tcgcgtcggg	gcccgcgtcc	gcggtccggc	tcaccgagcg	5820
cagcaaaactg	gccaagcaac	ttctgatcgg	atacgtcacg	tcgggcaccc	tgattctggc	5880
tgccggtgcc	atcgcggtcg	tggtgcgcgg	gcacttcttt	gtacacagcc	tggtggtcgc	5940
gggtttgatc	acgaccgtct	gcggatttcg	ctcgcggctt	tacgccgagc	gctggtgtgc	6000
gtgggcgttg	ctggcgggcga	cggtcgcgat	tccgacgggt	ctgacggcca	aactcatcat	6060
ctggtacccg	cactatgcct	ggctgttggt	gagcgtctac	ctcacggtag	ccctggttgc	6120
gctcgtggtg	gtcgggtcga	tggtcacagt	ccggcgcggt	tcaccggtcg	taaaacgaac	6180
tctggaattg	atcgacggcg	ccatgatcgc	tgccatcatt	cccatgctgc	tgtggatcac	6240
cggggtgtac	gacacgggtcc	gcaatatccg	gttctgagcc	ggatcggctg	attggcggtt	6300
cctgacagaa	catcgaggac	acggcgcagg	tttgataacc	ttcggcgccc	gacaaattgc	6360
tgcgattgag	cgtgtggcgc	gtccggtaaa	atttgctcga	tggggaacac	gtataggaga	6420
tccggcaatg	gctgaaccgt	tgccggtcga	tcccaccggc	ttgagcgag	cggccgcgaa	6480
attggccggc	ctcgtttttc	cgagcctcc	ggcgccgatc	gcggtcagcg	gaacggattc	6540
ggtggtagca	gcaatcaacg	agaccatgcc	aagcatcgaa	tcgctggtca	gtgacgggct	6600
gcccggcggtg	aaagccgccc	tgactcgaac	agcatccaac	atgaacgcgg	cggcggacgt	6660

96700-1031 - from 862 seq list.ST25.txt

ctatgcgaag accgatcagt cactgggaac cagtttgagc cagtatgcat tcggctcgtc	6720
gggcgaaggc ctggctggcg tcgcctcggg cggtggtcag ccaagtcagg ctaccagct	6780
gctgagcaca cccgtgtcac aggtcacgac ccagctcggc gagacggccg ctgagctggc	6840
accccgtgtt gttgcgacgg tgccgcaact cggtcagctg gctccgcacg ccgttcagat	6900
gtcgcaaaac gcatccccc a tcgctcagac gatcagtcaa accgccc aac aggccgcca	6960
gagcgcgcag ggcggcagcg gcccaatgcc cgcacagctt gccagcgtg aaaaaccggc	7020
caccgagcaa gcggagccgg tccacgaagt gacaaacgac gatcagggcg accagggcga	7080
cgtgcagccg gccgaggtcg ttgccgcggc acgtgacgaa ggccgcccgg catcaccggg	7140
ccagcagccc ggcggggggcg ttcccgcgca agccatggat accggagccg gtgcccggcc	7200
agcggcgagt ccgctggcgg ccccgctcga tccgtcgact ccggcaccct caacaaccac	7260
aacgtttag accgggcctg ccagcggctc cgtctcgac gcagcgcctg ttgctgtcct	7320
ggcctcgtca gcatgcggcg gccaggggcc ggtcgagcaa cccggtgacg tattgccagt	7380
acagccagtc cgcgacggcc acacgctgga cggccgcgtc agtcgcagtg tgcgcttggt	7440
gcagggcaat ctctgtgag tgggcagcgt agggccggaa cggccgcaga tgagcggcct	7500
cgcggccggg agcgggtgctg gtcattgggt tcatcagctc gaaccacagc atgtgccgct	7560
catcggccgg tggattgaca tccaccggcg ccggcggcaa caagtcgagc aaacgctgat	7620
cggtagtgct ggccagctga gccgcccggc aggggtcgac gacctccagc cgcgaccggc	7680
ccgtcatitt gccgctctcc ggaatgtcat ctgggtccag cacaatcttg gccacaccgg	7740
gatccgaact ggccaactgc tccgcggtac cgatcaccgc ccgcagcgtc atgtcgtgga	7800
aagccgcca ggcttgacag gccaaaaccg ggtaggtggc acagcgtgca atttcgtcaa	7860
ccgggattgc gtgatcccg cggtgccaagt acaccttatt cggaattcc atcccgtcg	7920
gtatgtaggc cagcccatag ctgttgcca cgacgatgga accgtcggtg gtcaccgcgg	7980
tgatccagaa gaaccgtag tcgcccgcgt tgttgtcgga cgcgttgagc gccgcccga	8040
tgctgcgc caaccgcagc gcatcaccgc ggccacgctg gcgggcgtg gcagctgag	8100
tggcggcgtc gcgtgccgcc cgagccggcg acaccgggat catcgacacc ggcgtaccgt	8160
catctgcaga ctgctgcga tcgggtttgt cgatgtgatc ggtcgacggc gggcgggcag	8220
gaggtgccgt ccgcgccgag gccgcccgcg tgctcggtgc cgccgccttg tccgaggtag	8280
ccaccggcgc ccgcccagtg gcagcatgcg accccgcgcc cgaggccgcg gccgtaccca	8340
cgctcgaacg cgcgcccgt cccacggcgg taccgctcgg cgcggcggcc gccgcccgtg	8400
cgcggggac accggacgcc gcagccggcg tcaccgacgc ggcggaattcg tccgcatggg	8460
caggccccga ctgcgtcccc ccgcccgcag gctggcccgg cacaccaggt tgctccgcca	8520
acgccgcggg ttgacgtgc ggcgcgggct cggcccctgg ggtgcccggg gttgctggac	8580

96700-1031 - from 862 seq list.ST25.txt

cagacggacc gggagtggcc ggtgtaaccg gctggggccc aggcgatggc gccggtgccg	8640
gagccggctg cgggtgtgga gcgggagctg gggtaacggg cgtggccggg gttgccggtg	8700
tggccggggc gaccgggggg gtgaccggcg tgatcggggt tggctcgcct ggtgtgcccg	8760
gtttgaccgg ggtcaccggg gtgaccggct tgcccgggt caccggcgtg acgggagtgc	8820
cgggcgttgg tgtgatcgga gttaccggcg ctcccgggat ggggtgtgatt ggggttcccg	8880
gggtgatcgg ggttcccggg gtgatcgggg ttcccgggtg gcccggtgtg cccggggatg	8940
gcacgaccag ggtaggcacg tctgggggtg gcggcgactt ctgctgaagc aaatcctcga	9000
gtgcgttctt cggagggttt caattcttgg attccagcac ccgctcagcg gtctcggcga	9060
ccagactgac attggcccca tgcgtcgccg tgaccaatga attgatggcg gtatggcgct	9120
catcagcatc caggctaggg tcattctcca ggatatcgat ctcccgttga gcgccatcca	9180
cattattgcc gatatcggat ttagcttgct caatcaaccc ggcaatatgc ctgtgccagg	9240
taatcaccgt ggcgagataa tcctgcagcg tcatcaattg attgatgttt gcaccagg	9300
cgccgttggc agcattggcg gcgccgccg accataggcc gccttcgaag acgtggcctt	9360
tctgctggcg gcagggtgcc aatacatcgg tgaccctttg caaaacctgg ctatattcct	9420
gggcccggtc atagaaagtg tcttcatcgg cttc	9454

<210> 2  
 <211> 1298  
 <212> DNA  
 <213> Mycobacterium tuberculosis

<400> 2	
ggtctagcag ctcgcccgcg ttttcgggca caaatgccgg atcgtggccc atgtcgatcg	60
gtttgttgta agcgtcgaca aacacgatcc gcggctggta tgtcggggcc cgggcgtcgt	120
ccatcgtcgc gtacgcaatc agaatcacca gatcccccg atgcaccaag tgcgcggcgg	180
caccgttgat gccaatcaca cactgccgc gttcgccggg gatcgcgtag gtgaccagtc	240
gagcaccgtt gtcgatatcg acgatgggta cctgttcgcc ttccagcagg tcggcggcgt	300
ccatcaagtc ggcatcgatg gtcaccgagc cgacgtagtg caggtcggcg caggtcaccg	360
tggcgcggtg gatcttcgac ttcagcatcg tccgtaacat cagtttctcc aatgtgattc	420
gaggattgcc cggtatccgt ccgggcggtc ggtgccggcg aaagtccga tttcaatcgc	480
aatgttgtcc agcagcctgg tggtgccaag ccgggcagca accagcagcc gaccggaacc	540
gttgagcggc atcggggcaa gcccgatatc gcgcagctcc aggtagtcga ccgccacgcc	600
gggtgcagcg tcgagcaccg cacgggcggc atccagcgcg gcctgcgcgc cagccgttgc	660
cgcatgcgct gcggccgtta gcgccgccga gagcgcgacg gccgccgcac gctgggccgg	720
gtccaggtag cggttgcgcg acgacatcgc cagcccgtcg gcttcgcgca cggtcggcac	780

96700-1031 - from 862 seq list.ST25.txt

gccgaccacc gcgacatcga ggttgaagtc cgcgaccagc tgccggatca gcaccagctg	840
ctggtagtcc ttctcaccga agaacacccg atccgggagc acgatctgca gcagctttag	900
cacgaccgtc agcacgccgg cgaaatgggt tggccgcggg ccgccctcga gttcggcggc	960
caacggaccg ggttgacggt tggcgccgag gccgtcggga tacatcgccg cggtagtgtg	1020
cgtgaaagcg atttccacgc cttcggcccc cagttgcgcc aggtcgtcgt ccgggggtgcg	1080
gggataggcg tcgagatctt ccccgccacc gaattgcacg gggttgacga agatcgacac	1140
gacgacgacc gatccgggca cccgcttggc cgcacgcacc aacgcgaggt ggccttcgtg	1200
cagcgacccc atagtaggca ccaacatcac tcgccggccg gtgagtcgca gtgcgcgact	1260
gacatcggcg acatcccccg gtgccgagta cacattga	1298

<210> 3  
 <211> 771  
 <212> DNA  
 <213> Mycobacterium tuberculosis

<400> 3 aacgggagat gagccgggac gcgtcgatgt accgcgccgc cgccgggctg caccggctgt	60
gcgacagcct atccggagca caggttcgcg acgtggcttg tcgccgcgat ttcgaggacg	120
tggcgctcac gctggtcgcg cagagcgtga ccgccgccgc cttggccccg accgaaagcc	180
gtggctgcca tcatcgcgcg gagtaccctg gcaccgtgcc ggagcaggca cgcagcatcg	240
tgggtccggg agccgacgac gcaaattgcg tgtgtgtcca ggcgctagtg gcggtgtgct	300
gatgggggta tccgactggg agctggctgc ggctcgagca gcaatcgcg gtgggctcga	360
cgaggacctc cggtacggcc cggatgtcac cacattggcg acggtgcctg ccagtgcgac	420
gaccaccgca tcgctggtga cccgggaggc cgggtgtggt gccggattgg atgtcgcgct	480
gctgacgctg aacgaagtcc tgggcaccaa cggttatcgg gtgctcgacc gcgtcgagga	540
cggcgcccgg gtgccgccgg gagaggcact tatgacgctg gaagcccaaa cgcgcggatt	600
gttgaccgcc gagcgacca tgttgaacct ggtcgggtcac ctgtcgggaa tcgccaccgc	660
gacggccgcg tgggtcgatg ctgtgcgcgg gaccaaagcg aaaatccgcg ataccgtaa	720
gacgctgccc ggcctgcgcg cgctgcaaaa atacgcggtg cgtaccggtg g	771

<210> 4  
 <211> 1255  
 <212> DNA  
 <213> Mycobacterium tuberculosis

<400> 4 gtgaacgagc tgctgcactt agcgccgaat gtgtggccgc gcaatactac tcgcatgaa	60
gtcgggtgtg tctgcatcgc aggaattcca ctgacgcagc tcgcccagga gtacgggacc	120

96700-1031 - from 862 seq list.ST25.txt

ccgctgttcg tcatcgacga ggacgacttt cgctcgcgct gccgagaaac cgccgcggcc	180
tttgaagtg gggcgaacgt gcactatgcc gccaaaggcgt tcctgtgcag cgaagtagcc	240
cggtggatca gcgaagaagg gctctgtctg gacgtttgca ccggtgggga gttggcggtc	300
gcgctgcacg ctagctttcc gcccgcgcga attaccttgc acggcaacaa caaatcggtc	360
tcagagtga ccgctgcggc caaagccgga gtcggccata ttgtcgtcga ttcgatgacc	420
gagatcgagc gcctcgacgc catcgcgggc gaggccggaa tcgtccagga tgcctgggtg	480
cgtctcaccg tcggtgtcga ggcgcacacc cacgagttca tctccaccgc gcacgagacg	540
cgtcagccac atcggttcgc agatcttcga cgtggacggc ttcgaactcg ccgcgcaccg	600
tgtcatcggc ctgctacgcg acgtcgtcgg cgagttcggc cccgaaaaga cggcacagat	660
cgcgaccgtc gatctcgggtg gcggcttggg catctcgtat ttgccgtccg acgacccacc	720
gccgatagcc gagctcgcgg ccaagctggg taccatcgtg agcgacgagt caacggccgt	780
ggggctgccg acgccaagc tcgttggtga gcccgacgc gccatcgccg gaccgggcac	840
catcacgttg tatgaggtcg gcaccgttaa ggacgtcgat gtcagcgcca cagcgcatcg	900
acgttacgtc agtgtcgacg gcggcatgag cgacaacatc cgcaccgcgc tctacggcgc	960
gcagtatgac gtccggctgg tgtctcgagt cagcgacgcc ccgccgttac cggcccgtct	1020
ggtcggaaag cactgcgaaa gtggcgatat catcgtgcgg gacacctggg tgcccgcgca	1080
tattcggccc ggcgatctgg ttgcggttgc cgccaccggc gcttactgct attcgctgtc	1140
gagtcgttac aacatggtcg gccgtcccgc tgtggtagcg gtgcacgcgg gcaacgctcg	1200
cctggtcctg cgtcgggaga cggtcgacga tttgctgagt ttggaagtga ggtga	1255

<210> 5  
 <211> 18  
 <212> DNA  
 <213> Artificial

<220>  
 <223> primer

<400> 5  
 gggggcgcac ctcaaacc 18

<210> 6  
 <211> 22  
 <212> DNA  
 <213> Artificial

<220>  
 <223> primer

<400> 6  
 atgtgccaat cgtcgaccag aa 22



96700-1031 - from 862 seq list.ST25.txt

<210> 7  
<211> 17  
<212> DNA  
<213> Artificial

<220>  
<223> primer

<400> 7  
cacccagccg cccggat

17

<210> 8  
<211> 20  
<212> DNA  
<213> Artificial

<220>  
<223> primer

<400> 8  
ttcctgatgc cgccgtctga

20

<210> 9  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> primer

<400> 9  
gtgcagcgcc atctctca

18

<210> 10  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> primer

<400> 10  
gttcaccggg atggaacg

18

<210> 11  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> primer

<400> 11  
cccggctcgg tgtgggat

18

<210> 12  
<211> 18  
<212> DNA

96700-1031 - from 862 seq list.ST25.txt

<213> Artificial

<220>

<223> primer

<400> 12

gcgcggtatg cccggtag

18